



U.S. Department of Energy  
Energy Efficiency  
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# *Reinventing Clean Cities*

## A Road Map to An Expanded Clean Cities Portfolio

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# Why Are We Expanding the Clean Cities Portfolio?

- Extend the success of Clean Cities in achieving higher levels of petroleum displacement
- Respond to increased market demand for a broader technology portfolio
- Create more flexibility for Coalitions to tailor solutions to local needs
- Increase leveraging and partnerships with other federal, state and local, and industry programs
- Increase stakeholder base



# Road Map Development Process

- Conducted analysis of impacts of alternative technologies and held initial stakeholder dialogues - developed initial portfolio recommendations
- Presented recommendations to David Garman
- Convened Road Mapping Workshop to identify most promising market opportunities, potential Clean Cities actions, and new partnership opportunities
- Conducted further analysis and stakeholder dialogue
- Prepared draft road map
- Final road map to be presented at May Conference



# Road Map Principles

- Clean Cities can significantly reduce oil use in the near term and facilitate hydrogen transition
- Clean Cities is a highly effective deployment program that is well suited to accelerate the expanded portfolio
  - Can serve as deployment arm for DOE's transportation programs
- Clean Cities is positioned to develop the strategic partnerships that will be most effective in reaching DOE's ambitious petroleum displacement goals



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# New Program Mission

To advance the national, economic and energy security of the United States by supporting local decisions to reduce the use of petroleum fuels in vehicles



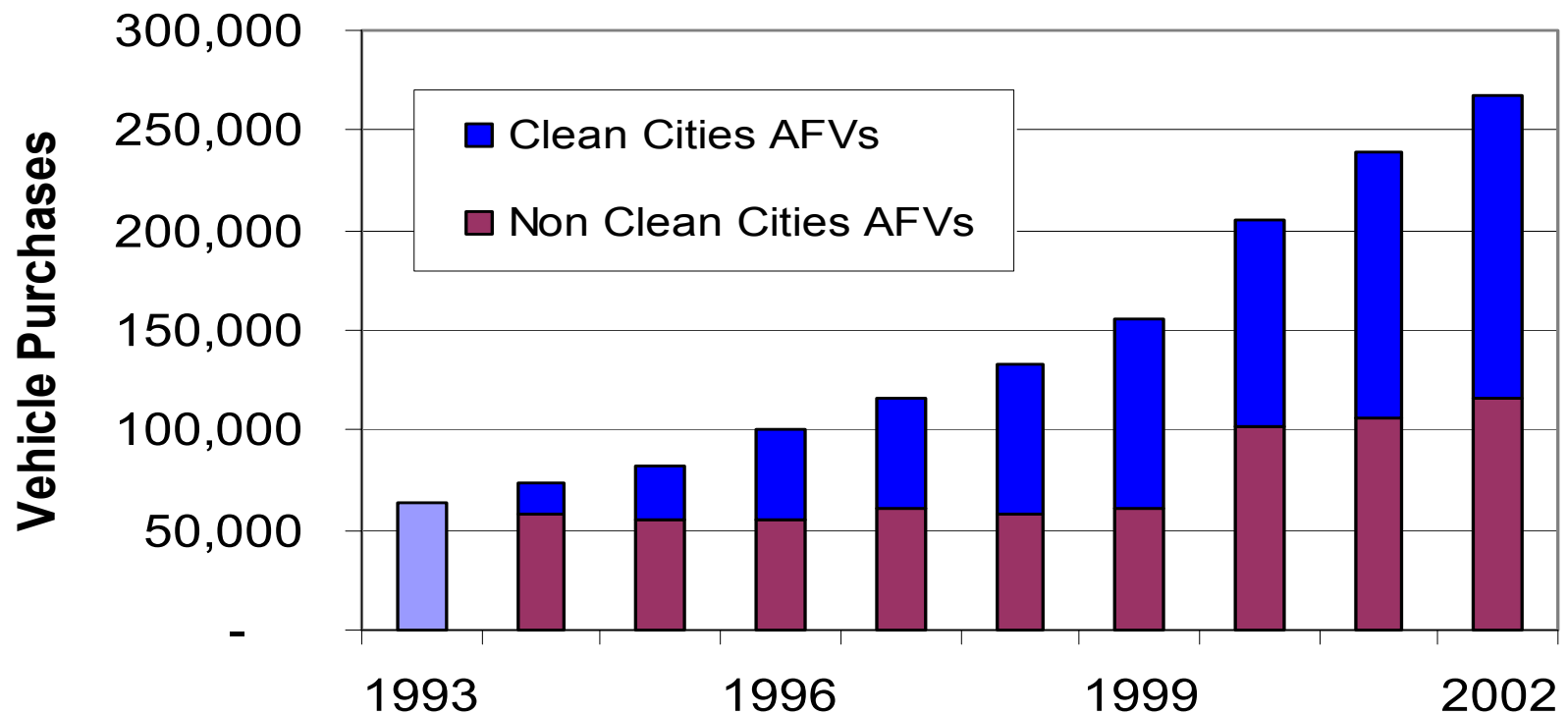
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# Clean Cities Has Dramatically Increased AFV Use



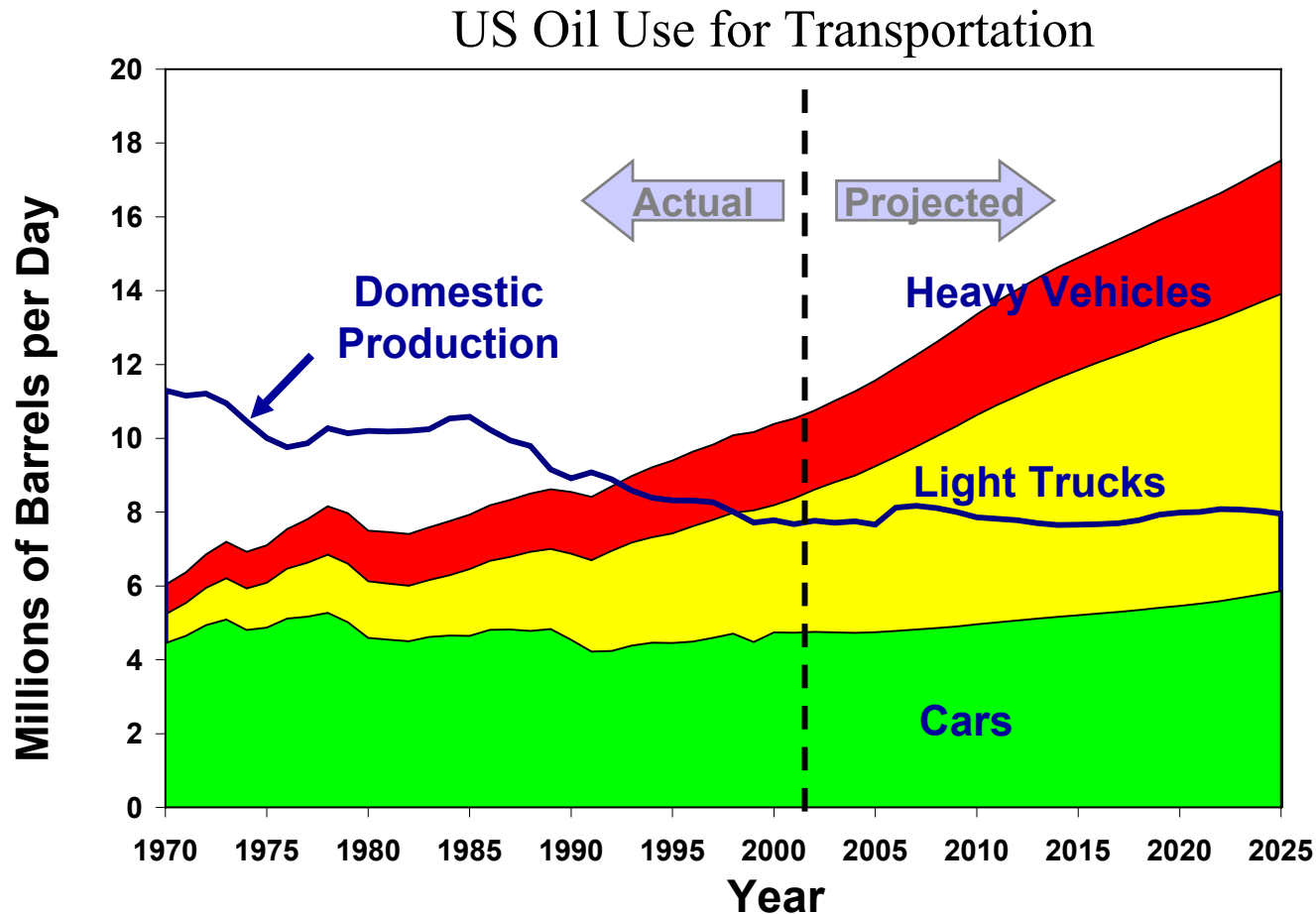
# Clean Cities Outpace Non Clean Cities Vehicle Purchases







## US Energy Dependence is Driven By Transportation

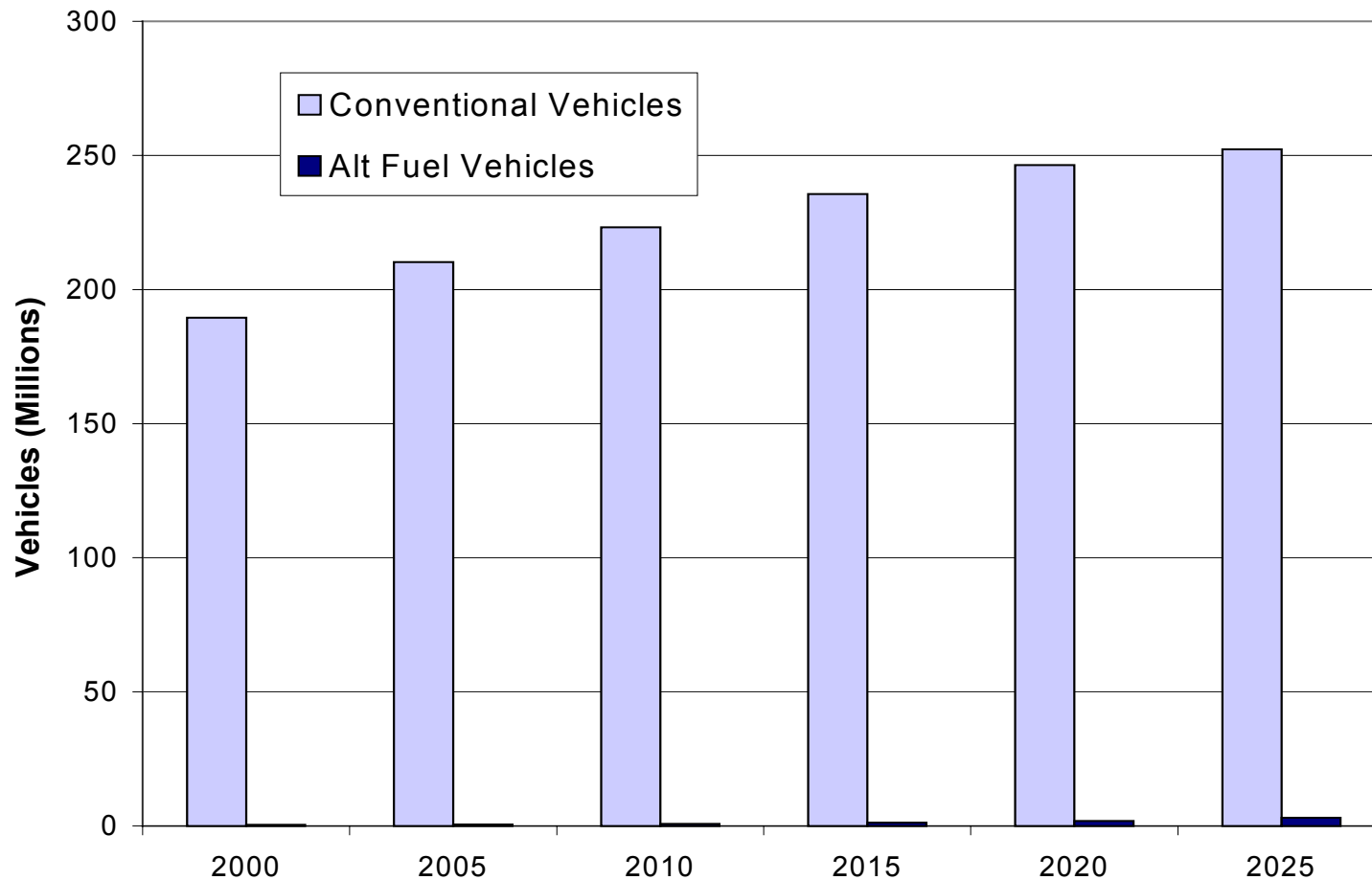


Source: Transportation Energy Data Book: Edition 21, DOE/ORNL-6966, September 2001,  
and EIA Annual Energy Outlook 2003, January 2003





Even with growth over the next 20 years, AFVs alone won't have a significant impact on oil consumption





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What actions can we take  
today to *significantly* decrease  
America's dependence on  
petroleum?



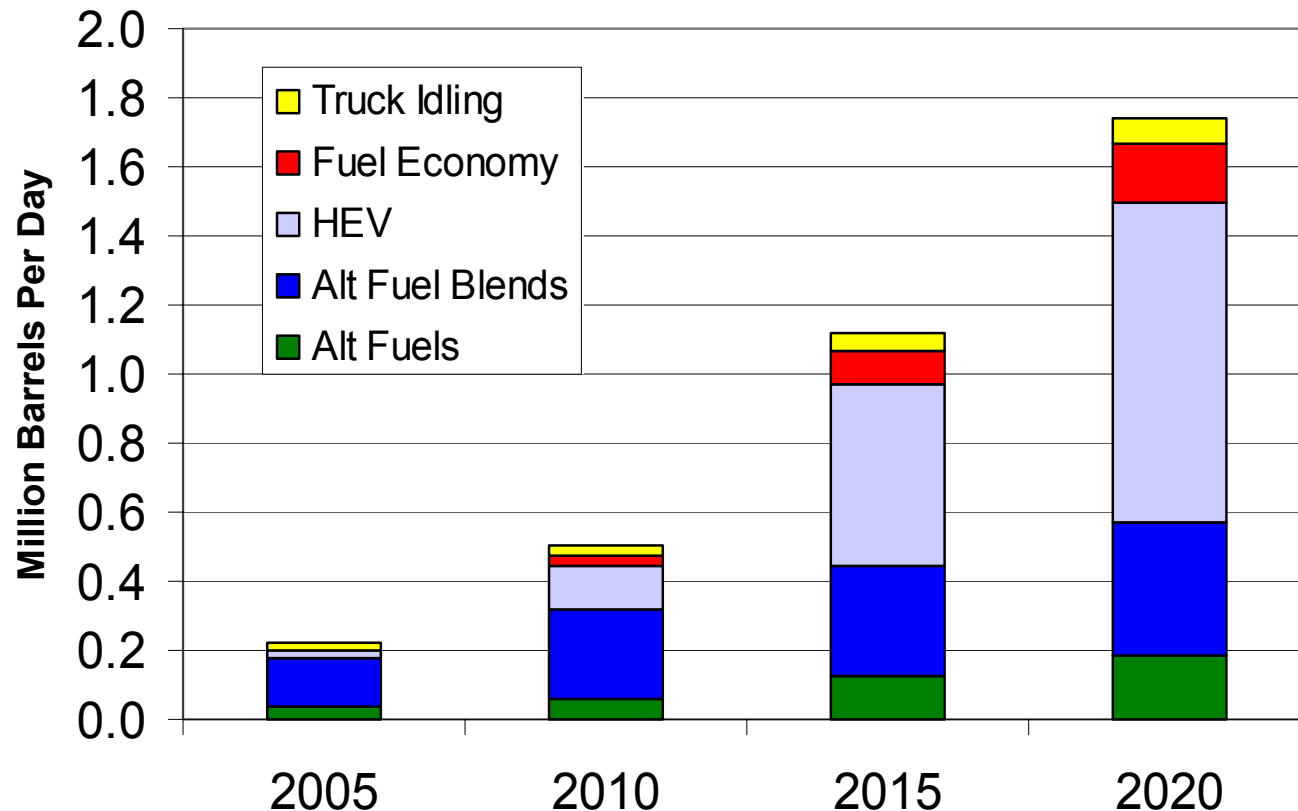
# Updated Portfolio of Technologies – A Technology Neutral Approach

- Expand use of blends (e.g., B20, E10, HCNG)
- Accelerate sales of hybrids
- Promote informed consumer choice on fuel economy
- Encourage use of idle reduction technologies
- Increase use of alternative fuels

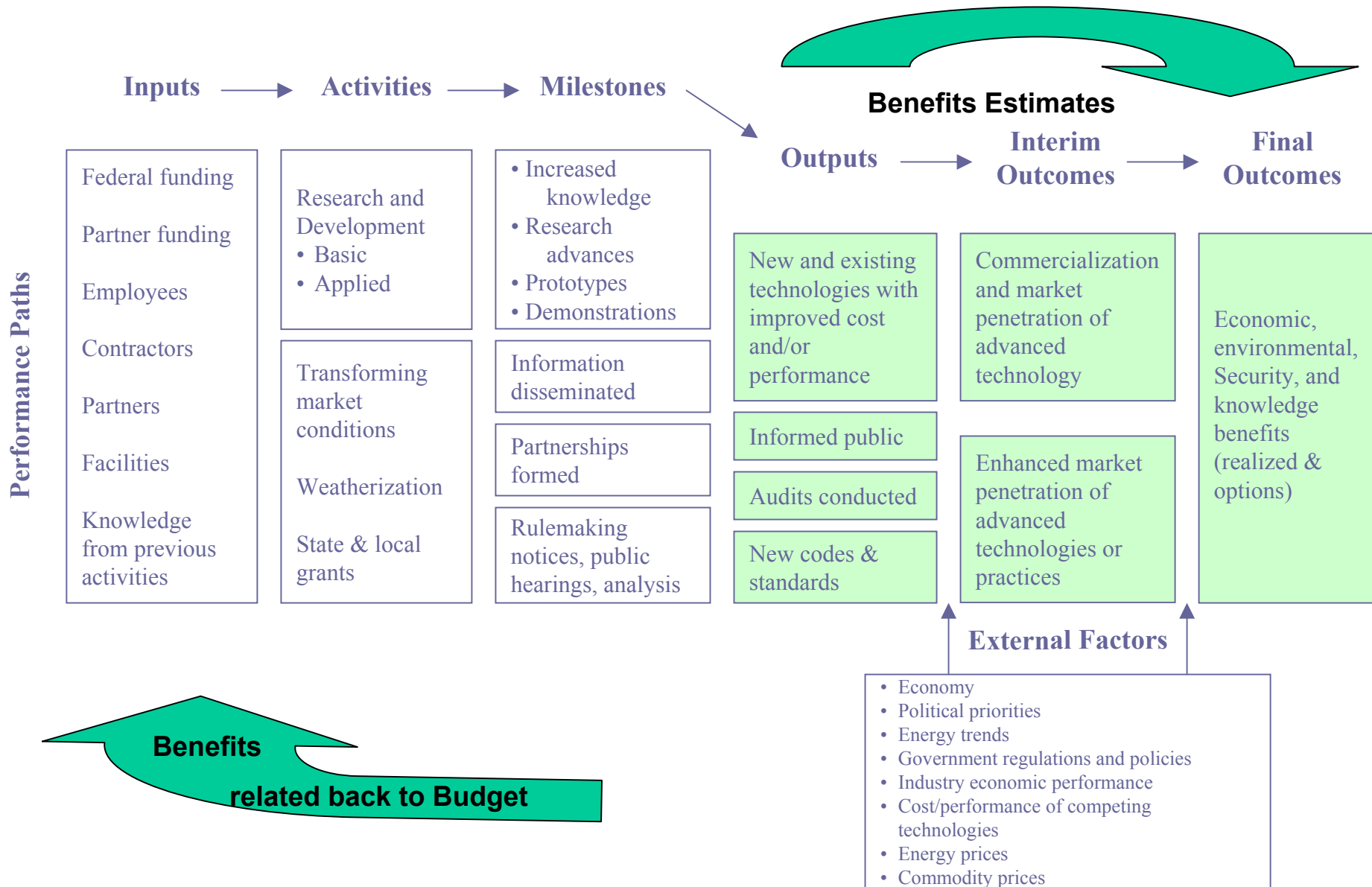


# DRAFT National Market Estimate

(Preliminary estimate. Not for distribution.)



# EERE Logic Model

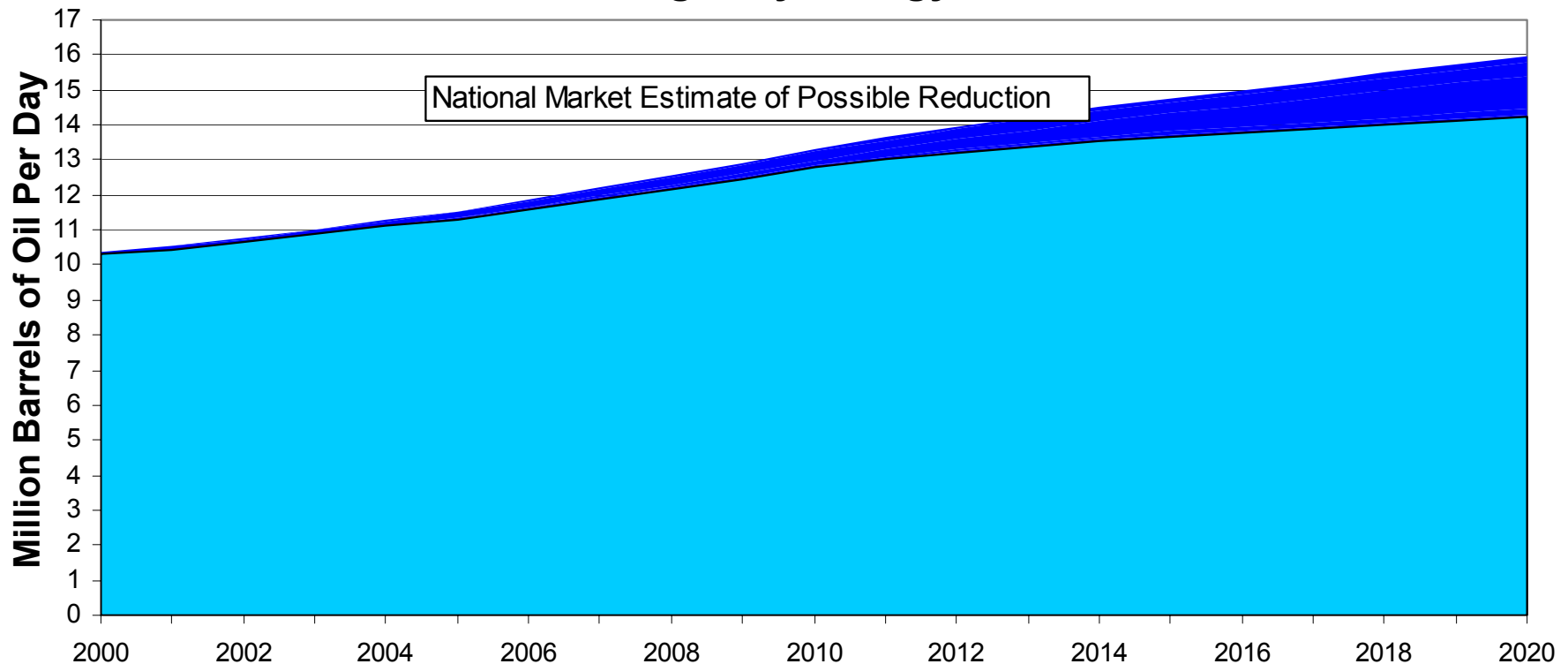




# DRAFT Estimate in Perspective

(Preliminary estimate of portfolio technologies. Not for distribution.)

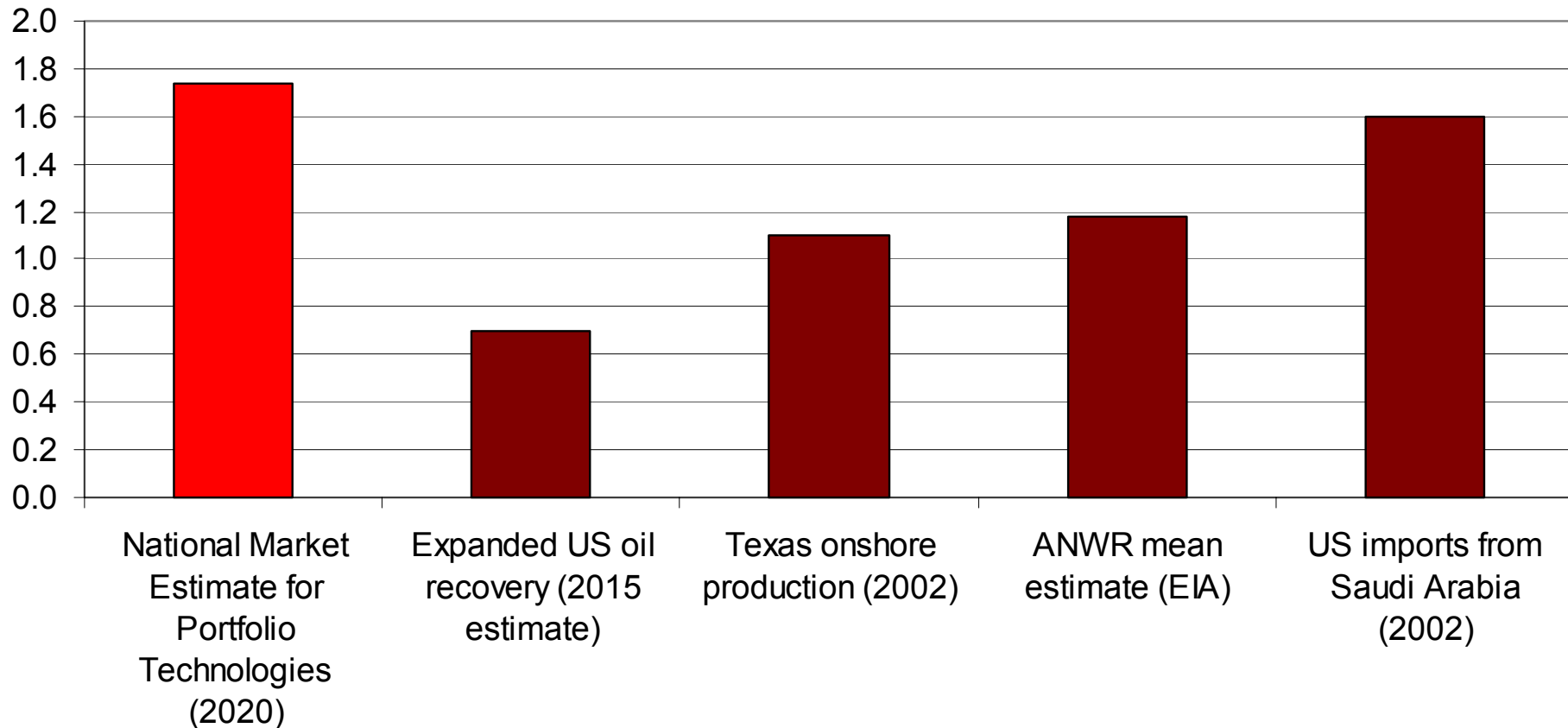
## Total Highway Energy Use





# DRAFT Estimate in Perspective

(Preliminary estimate. Not for distribution.)

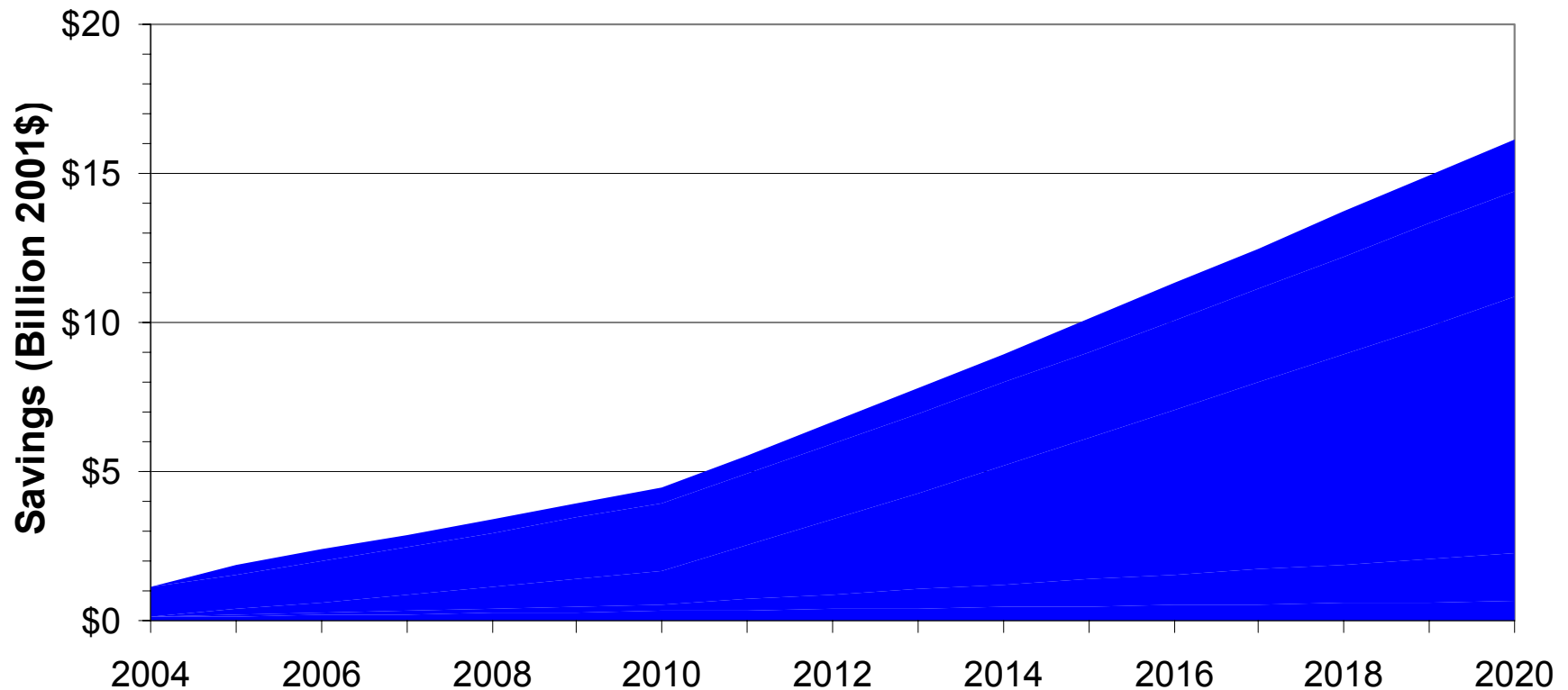






# Dollar Benefits Associated with DRAFT National Market Estimate of Petroleum Reduction

(Preliminary estimate. Not for distribution. Do not cite, quote, or copy.)



Based on AEO2003 world oil price, which averages \$25/barrel.



# Defining New Clean Cities Activities

- Draft road map provides overview of technologies, market activity and barriers, and possible actions
- Most interested in your input on what technologies and actions Coalitions will have the greatest petroleum reduction impact
  - This will provide basis for setting program goals and for design of national activities to support Coalition actions
  - Will discuss in more depth this afternoon
- Coalitions will have flexibility to set technology priorities and tailor actions to local circumstances
- ***Instead of counting AFDVs, we will be tracking barrels of oil displaced***



# Potential AFV Actions

- Expand outreach to fleets to promote AFV use
  - Targeting transit, delivery, schools, airports, and municipal fleets
- Provide improved information on life cycle benefits
- Continue to support infrastructure development, including H2 transition
- Partner with state and local governments to enhance and enforce policies and incentives
- Promote use of AFVs for off-road applications



# Proposed Hybrids Actions

- Fleet outreach to increase hybrids use
  - Transit, delivery, waste management, buses, airports
- Educate consumers about hybrids benefits, including life cycle benefits
- Promote consolidated and standardized procurements
- OEM partnerships to improve understanding of product availability and OEM marketing plans
- Enhanced information on tax incentives and funding sources
- Evaluate opportunities to strengthen resale, leasing, rental and other markets



# Proposed Blends Actions

- Partner with state and local governments to expand mandates and incentives
  - Model policies, case studies, training for state and local officials, etc.
- Improved information to users on performance, costs, environmental impacts
- Training for Coalitions on availability, performance, and impacts of alternative blends
- Develop model procurement specifications for selective feedstock use



# Proposed Idle Reduction Actions

- Target long-haul trucking first and then expand to other fleets
- Advancing the Choice events on idle reduction
- Information dissemination and outreach on idle reduction technologies and benefits
- Partner with DOT and EPA on transportation corridor programs
- SEP grants to stimulate idle reduction market penetration
- Explore establishment of national and regional goals





# Proposed Fuel Economy Actions

- Compile information on fuel economy benefits for different users
- Outreach to fleets on cost savings
- Partner with “It All Adds Up” on public education activities
- Motor Week episode on fuel economy
- Explore voluntary labeling and rating programs with EPA and others





# Road Map Next Steps

- Receive your input on technology priorities and actions
- Circulate draft road map to key stakeholders for review
- Establish specific program goals and improve impact estimates
- Prepare second draft by April
- Final version distributed at Conference in May
- Begin implementation in FY05



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One last thought on *Reinventing Clean Cities*

“Everything that can be  
invented, has been  
invented.”

Charles H. Duell

U.S. Commissioner of Patents, 1899